

in 25 fathoms. These ranged in length from 20 to 29 mm. So far as known, this species has not been reported from so far south. A single example was also found in a scallop taken in 37 fathoms, 16 miles S. from Nantucket Lightship.

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FURTHER NOTES ON THE SALIENTIA OF JACKSONVILLE, FLA.

Hyla pickeringii Storer, the "Spring peeper," is rather rare here, only two small "bayous" containing very few specimens having been found by the writer. These places were about six miles apart. I have heard this species sing only in December.

Hyla squirella Bosc., the commonest of the southern tree-toads, is found everywhere, in cornfields, sugar cane, about wells and under the eaves of stable roofs, barns, outhouses, etc. After a heavy thunder shower in September, 1911, hundreds of these little tree toads could be seen hopping along the country roads outside of Jacksonville. That same night the writer took 32 specimens from a velvet bean vine on the blank side of his cottage. The cry is rather coarse, sounding like: "Cra, cra, cra," etc., with a second's interval between each note. This species is noted for its rapid color changes.

Hyla femoralis Latreille is called the Pine tree toad, from its habit of frequenting the tops of pine trees almost exclusively, during the summer months. It resembles our own gray tree toad, with its rough skin and star-shaped dark patch on the back, but is smaller and more slender. Its usual color is dark reddish-brown or chestnut, but it can readily change from fleshy pink or pale gray to any shade of brown, gray or green. It is one of the shyest of tree toads, rarely caught except during the breeding season, when it frequents certain "bayous" in thousands. The

noise resulting from the calls of the males on these occasions, is deafening. This call cannot be reproduced on paper, being a rapid succession of harsh, rattling notes, higher in pitch than the call of *H. squirella*, and kept up all night. During the dry season this tree toad occasionally calls from the tops of the pine trees, one answering the other.

Hyla cinerea, Daud., is an aristocratic looking tree toad, with its long, slender figure of the brightest green, edged on each side with a band of pale gold or silvery white. Its size is larger than any of the preceding species, often reaching $2\frac{1}{2}$ inches from snout to vent. Occasionally met with on corn fields, its chief haunts, however, seem to be the shores of the creeks, where it occurs in scattered companies on the water hyacinths and bulrushes. Its call sounds like: "Grab, grab, grabit, grabit," etc., uttered in a shrill, loud voice, and has a startling resemblance to the human voice. One would never think the call came from a frog. Although a powerful leaper, it is easily caught when once located, as it is not at all shy. This species seems to have no special breeding season, and is never heard in the early spring, when the majority of the other frogs and toads congregate at the shallow "bayous."

Hyla gratiosa, Le Conte, the Florida tree toad, is a handsome species, and the largest of the North American tree toads, reaching a length of $3\frac{1}{4}$ inches from snout to vent. It is heavily built, with large adhesive disks on fingers and toes. It differs from all other species in its evenly granulated skin, and regular pattern of roundish spots. The color is ashen gray, purplish or green of some shade. The spots are darker than the ground color, evenly distributed over the upper surfaces, and may be absent when the frog changes to pale golden green. The arms and legs are banded. The throat of the male is rich chrome yellow or green. It is not very plentiful anywhere, and rarely met with outside the breeding season. Dur-

ing the latter time it comes down out of the trees, and small companies of from four to ten specimens, in widely scattered pools or "bayous," attend to their breeding duties amid the loud calls of the males. The call can be heard for over a mile, and sounds like a large gong, or church bell, being of unusual depth, and very clear, with a second's interval between each dual note. The male, while singing, floats in the water, the large vocal sac throwing the frog into a vertical position with every utterance. The eggs are laid singly and sink to the bottom of the pool. I have never heard this species call except during the breeding season, which lasts from March to June, beginning with the first warm rains.

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LIST OF AMPHIBIANS AND REPTILES
OBSERVED IN THE SUMMERS OF
1912, 1913 AND 1914, IN NELSON
COUNTY, VIRGINIA

Nelson county is partly in the Piedmont section of Virginia and partly in the Blue Ridge. The collecting was mostly on the James River, in the Piedmont section, about 40 miles below Lynchburg, at an altitude of 400 to 600 feet. The figures refer to actual records in my notebook. Where the common names are given they are those in use for the species in Nelson County.

Desmognathus fusca (Rafinesque).

Diemictylus viridescens (Rafinesque). Both land and water forms. Land form "ground puppy," water from "spring lizard."

Bufo americanus Holbrook. "Toad." Very common.

Acris gryllus crepitans (Baird). Common locally.

Hyla versicolor Le Conte. "Tree toad."

Rana catesbeiana Shaw. "Bull frog."

Rana clamata Daudin.